

 CALIFORNIA AIR RESOURCES BOARD	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0910 New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2021	MKBXL03.8A5D	3.77	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Exhaust Gas Recirculation, Charge Air Cooler, Electronic Control Module, Periodic Trap Oxidizer, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst			Loader, Tractor, Carrier, Forklift, Roller, Skid Steer Loader	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.04	0.20	--	0.2	0.002	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part 1-D" adopted October 20, 2005 and last amended October 25, 2012.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed on this 22nd day of June 2020.



Allen Lyons, Chief
Emissions Certification and Compliance Division

Engine Model Summary Form

EO # U-R-025-0910
Date: 05/20/2020

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **MKBXL03.8A5D**
Mfr Family Name: **N/A**
Process Code: **New Submission**

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1.Engine Code 2.Engine Model

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
C3.8-CR-TI-EW04	C3.8-CR-TI-EW	109.7@2400	75.6	40.6	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
C3.8-CR-TI-EW13	C3.8-CR-TI-EW	96.7@2400	67.1	36.0	243.4@1500	74.3	24.9	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
D3.8J-CR-TI-EW03	D3.8J-CR-TI-EW	114.1@2600	74.1	43.1	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
D3.8J-CR-TI-EW05	D3.8J-CR-TI-EW	106.6@2200	79.2	39.0	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW02	V3800-CR-TI-EW	116.9@2600	76.5	44.5	286.3@1500	87.5	29.3	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW03	V3800-CR-TI-EW	114.1@2600	74.1	43.1	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW04	V3800-CR-TI-EW	109.7@2400	75.6	40.6	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW05	V3800-CR-TI-EW	106.6@2200	79.2	39.0	279.8@1500	84.9	28.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW06	V3800-CR-TI-EW	114.1@2600	74.4	43.2	279.8@1500	85.2	28.6	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW07	V3800-CR-TI-EW	104.5@2600	68.4	39.8	255.3@1500	77.7	26.1	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW08	V3800-CR-TI-EW	113.2@2600	73.9	43.0	268.3@1500	81.7	27.4	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW09	V3800-CR-TI-EW	108.2@2600	70.9	41.2	259.4@1500	79.0	26.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW10	V3800-CR-TI-EW	105.7@2400	73.6	39.5	267.4@1500	81.5	27.3	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW11	V3800-CR-TI-EW	95.1@2600	62.8	36.5	231.4@1500	71.4	23.9	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW12	V3800-CR-TI-EW	92.5@2400	64.8	34.8	243.8@1500	74.9	25.1	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW13	V3800-CR-TI-EW	96.7@2400	67.1	36.0	243.4@1500	74.3	24.9	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW14	V3800-CR-TI-EW	94.9@2400	66.1	35.5	255.9@1500	77.7	26.1	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW15	V3800-CR-TI-EW	110.2@2600	71.5	41.6	262.1@1500	79.2	26.6	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW16	V3800-CR-TI-EW	97.1@2600	63.7	37.0	235.4@1500	72.0	24.1	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW19	V3800-CR-TI-EW	109.7@2400	76.1	40.8	279.8@1500	85.2	28.6	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW20	V3800-CR-TI-EW	102.5@2400	71.5	38.4	255.3@1500	77.7	26.1	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW21	V3800-CR-TI-EW	99.1@2600	66.9	38.9	241.7@1500	74.1	24.8	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX
V3800-CR-TI-EW22	V3800-CR-TI-EW	89.3@2600	61.0	35.5	216.5@1500	67.1	22.5	EM, DFI, TC, EGR, CAC, ECM, PTOX, DOC, SCR, AMOX